

### **Remarks**

Applicants gratefully acknowledge the Examiner's withdrawal of the rejection under 35 U.S.C. § 102 in the August 17, 2007 Final Action. The following remarks are responsive to the remaining rejections in the August 17, 2007 Final Action.

Reconsideration is respectfully requested.

### **Status of the Claims**

Claims 41, 43-48, 53-54, 56, and 61-62 are pending.

### **Rejections under 35 U.S.C. § 103(a)**

Claims 41, 43-48, 53-54, 56, and 61-62 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,618,723 (Klaenhammer) in view of U.S. Publication No. 2001/0041203 (Uno), and further in view of U.S. Patent No. 7,090,875 (Miyazaki).

The invention relates, in one aspect, to a process for producing a cosmetic and/or pharmaceutical active component. The process includes providing a fermentation broth comprising a plant component selected from the group consisting of rice plant constituents, rice plant extracts and mixtures thereof; and inoculating the fermentation broth with a mixture of four (4) microorganisms, comprising at least one *Lactobacillus*, at least one *Lactococcus*, at least one *Leuconostoc* and at least one yeast.

Klaenhammer relates to a method for producing recombinant bacterium for use in producing fermentative culture that is resistant to the appearance of a new bacteriophage. Klaenhammer discloses that bacteria used in the fermentation of dough formed from cereals (including wheat, rye, rice, oats, barley, and corn) may include yeasts, and lactic acid bacteria of the genera *Lactobacillus*, *Lactococcus*, *Pediococcus*, and *Leuconostoc*. Klaenhammer does not teach the particular combination of the four (4) components in independent Claims 41 and 56.

Uno discloses a method of removing off-flavor from foods by adding a polymer of phenol compounds having a styrene structure. Example 4 describes the fermentation of rice with yeast and lactic acid, followed by the addition of alpha-amylase, glucoamylase, and hemicellulase, to obtain a saccharified rice liquor. Uno does not teach the particular combination of the four (4) components in independent Claims 41 and 56.

Miyazaki relates to a microorganism that reacts with a bean extract to produce a fermented product for a skin preparation. Among the numerous microorganisms disclosed by Miyazaki (col. 3, line 62 to col. 4, line 23), three of the microorganisms of Claims 41 and 56, namely, *Lactobacillus*, *Lactococcus* and *Leuconostoc*, may be found, in addition to the Genus *Monascus*. The microorganisms of Miyazaki may be combined with nutritive substances, including yeast extracts (col. 4, lines 42-46), and added to a bean extract prior to fermentation. Miyazaki discloses that there are no specific limitations to the microorganisms that may be used, but does not teach the particular combination of the four (4) components in independent Claims 41 and 56.

As correctly asserted by the Examiner, Klaenhammer does not explicitly teach that *Lactobacillus*, *Lactococcus*, *Leuconostoc*, and yeast are used together. The Examiner, however, alleges that it would have been obvious to combine *Lactobacillus*, *Lactococcus*, *Leuconostoc*, and yeast together, as Klaenhammer teaches them individually as examples in the fermentation preparations, and that one skilled in the art would choose from a finite number of predictable solutions because there is good reason to pursue the known options within the technical grasps, but this is not the standard for obviousness: there must be some teaching, or convincing line of reasoning why the skilled worker would have found it obvious to combine *Lactobacillus*, *Lactococcus*, *Leuconostoc*, and yeast and arrive at the invention as claimed.

Klaenhammer may generally disclose the four (4) components individually, as alleged by the Examiner, but Applicants are not claiming each individual component. Applicants are claiming a particular combination of the four (4) individual components, and none of the references teaches or provides a reason for selecting the particular

combination of at least one *Lactobacillus*, at least one *Lactococcus*, at least one *Leuconostoc* and at least one yeast for inoculating any fermentation broth.

Klaenhammer discloses (1) cereals, including wheat, rye, rice, oats, barley, and corn; (2) yeasts, including *Saccharomyces cerevisiae* and *Candida utilis*; and (3) lactic acid bacteria of the genera *Lactobacillus*, *Lactococcus*, *Pediococcus*, and *Leuconostoc* (column 9, lines 43-47). Although Klaenhammer discloses that the bacterial starter culture may comprise several bacterial strains, wherein a portion of each bacterial strain is modified in accordance with the invention (column 10, lines 20-30), there is no teaching of which strains should be combined. Klaenhammer discloses only that the preferred species is *Lactococcus* (column 10, lines 17-19). The Examples also lack a teaching of the particular combination of the four (4) components specifically claimed. The only bacterial strain exemplified (and claimed by Klaenhammer) is *L. lactis*.

With regard to the Examiner's allegation of there being a "finite number of predictable solutions because there is good reason to pursue the known options", it cannot be fairly said that, based on the number of cereals provided and the various bacterial strains disclosed, there is a "finite number" of "predictable solutions". Although the number is not "infinite", it would take more than routine experimentation for a skilled worker to arrive at the invention as claimed, if at all. Moreover, the particular combination of the four (4) components would certainly not have been "obvious" to the skilled worker in view of the numerous possible combinations. The only "predictable solution" herein is found in the Applicants' disclosure.

No teaching or line of reasoning has been provided why one skilled in the art would have selected the particular combination of the four (4) components specifically claimed. Therefore, since Klaenhammer fails to teach the particular combination of the four (4) components specifically claimed, and since no convincing line of reasoning has been provided why one skilled in the art would have found it obvious to combine the components, the Examiner is respectfully requested to reconsider the disclosure of Klaenhammer and the subject matter of the claims as a whole, since the disclosures of

Uno (relied on by the Examiner for various procedures) and Miyazaki (relied on by the Examiner for pH) cannot remedy the deficiencies of Klaenhammer.

Since it would not have been obvious to one skilled in the art to substitute or select among the various elements of the references and arrive at the invention with any reasonable expectation of success, and the combination of references and the reasons provided by the Examiner are insufficient to support a *prima facie* case of obviousness, the rejection should be withdrawn. Reconsideration and withdrawal of the rejection are respectfully requested.

#### Fees


A Request for Continued Examination and requisite fee is enclosed. No additional fees are believed due, but the Commissioner is authorized to charge any fees deemed due (or credit any balance owing) to Deposit Account No. 50-1177.

#### Conclusion

It is respectfully submitted that Claims 41, 43-48, 53-54, 56, and 61-62 are in condition for allowance. A Notice of Allowance is respectfully requested. If anything further is needed to advance the allowance of this application, the Examiner is urged to contact Applicants' attorney at the telephone number indicated below.

Respectfully submitted,

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Date

  
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